

ABSTRACT

For a resource reservation in a distributed resource system, a tentative reservation request and a job reservation request are issued from a job scheduler to a resource management unit. The tentative reservation is valid for a short time period, and cannot coexist with another tentative reservation or the job reservation. In order to actually use resources, a job reservation must be issued after registration of the tentative reservation. If a tentative reservation request is received for a resource to which another tentative reservation request is already accepted, the tentative reservation request is stored in a wait queue, which is successful if the another tentative reservation is cancelled or failed due to the expiration of the validity time period.